

REMARKS

Claims 1-13 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claim 12 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants have amended the above claims to correct the insufficient antecedent basis, and to agree with the temperature actuated switching means originally set forth. Thus, Applicants submit that this rejection has respectfully been traversed.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-11, and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by McFarlane et al (U.S. Pat. No. 5,107,918). This rejection is respectfully traversed.

With regard to the rejection of claims 1, 4, 7 and 10, the Office Action recites a temperature-actuated switching means (140, 144, 146, 154) for mechanically switching power via mechanical relays (122, 136). However, such mechanical relays still require the application of electrical power to be switched. Furthermore, the temperature actuated switching means recited in the Final Office Action includes a microcomputer 140, a temperature sensor 144, an Analog-to-Digital converter 146 and relay drivers, all of which require and consume electrical power. Applicants respectfully request the Examiner reconsider the application of McFarlane in the above rejection, because the present apparatus as claimed clearly specifies a temperature-actuated switching means for actuating, independent of any electrical power application, to switch a power source

to a heating system. Applicants note that the specification clearly states that the apparatus controls or enables HVAC heating operation when the temperature-actuated switching means is exposed to a predetermined temperature, where “a thermally actuated member mechanically switches to a closed position to complete a connection”. (Paragraph 8). The specification further defines this control of the HVAC system through mechanical switching means as one that “does not obtain power or steal power from any HVAC connection, or from a battery source, to control the HVAC system. (Paragraph 10) Applicants also submit that a “thermally actuated member for mechanically switching” would be understood by a person of ordinary skill in the art to be a switch that operates without the application of power.

Here, the present claims require a temperature actuated switching means for actuating, independent of any electrical power application, to switch a power source. The specification describes the temperature actuated switch means as a thermally actuated switch, and provides enabling examples of commercially available thermally actuated switches. One disclosed example of a thermally actuated switch is an SC065 manufactured by Instruments Controls and Measurement, Inc. (Paragraph 8 of the specification). Another disclosed example of a thermally actuated switch manufactured by Therm-O-Disc has also been described in US Patent 6,239,686 assigned to Therm-O-Disc, a subsidiary of Emerson Electric Co., which was examined and allowed by the present Examiner. Applicants submit that the function of such temperature-actuated or temperature-responsive switching means are clearly understood to switch without any application of electrical power.

The thermostat disclosed in McFarlane is a costly electronic thermostat having a microcomputer, which the contractor or user of the present invention does not wish to install during the construction phase. If such an electronic thermostat were damaged during construction, the cost of replacement would be significant. New construction contractors often use inexpensive mechanical thermostats during construction phase, such as the mechanical thermostat in co-assigned US Patent 6,639,503, which was also examined and allowed by the present Examiner. However, as the Specification points out, a contractor would desire to avoid the labor associated with installing a mechanical thermostat during construction, and then uninstalling the mechanical thermostat to install a new electronic thermostat when construction is complete.

Here, the present invention allows a contractor to install a sub-base (for example, of an electronic thermostat or a mechanical thermostat) having a connector that releasably connects temporarily to an apparatus for controlling the HVAC system. Specifically, the apparatus comprises a temperature activated switch means for actuating independent of electrical power application or consumption of electrical power to switch a power source to a heating system when the ambient temperature drops below a non-adjustable predetermined temperature. The apparatus of the present invention is both inexpensive and removable, and allows for replacement or easy installation of a new electronic or mechanical thermostat to the installed sub-base. Many electronic thermostats are designed to be releasably connectable to a sub-base, to allow for removal and replacement of batteries when required. However, the present invention is a mechanically operated apparatus that does not obtain or steal power from any source, and also releasably connects to a thermostat sub-base. Existing mechanical thermostats are not releasably connectable to a sub-base to allow for easy

removal of the thermostat, since there is no need to remove such thermostats or to replace batteries. Applicants are unaware of any mechanical thermostats that are releasably connectable to a sub-base, and that comprise temperature actuated switching means for switching, independent of any electrical power application, when exposed to a non-adjustable pre-determined temperature. Applicants also submit that it would not have been an obvious design choice to make an apparatus configured to be releasably connectable to or removable from a sub-base, to provide temporary connection to and control of an HVAC system to a non-adjustable temperature activated switching means for switching independent of any electrical power application. Thus, the apparatus meets the long-felt need of construction contractors for an apparatus that is inexpensive by virtue of its simple non-adjustable temperature control of HVAC operation independent of any power application, and that is also releasably connectable to a sub-base to allow for subsequent removal of the apparatus and replacement with a new thermostat without any wiring or additional labor. Thus, Applicants believe claims 1, 4, 7 and 10 are distinguished over the cited art, and are allowable.

With regard to claims 2-3, 5-6, 8-9, 11 and 13, these claims depend from the above independent base claims, which applicants believe to be allowable. Thus, applicants submit that these claims are also not anticipated by McFarlane, and are allowable for at least the reasons presented above.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Respectfully submitted,

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